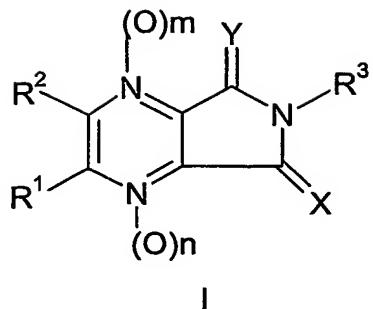


**Claims**

1. A compound of formula (I)



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and pharmaceutically acceptable salts thereof, in which

R<sup>1</sup> and R<sup>2</sup> independently represent phenyl, thienyl, pyridyl, C<sub>1-10</sub>alkyl, C<sub>1-10</sub>alkoxy or C<sub>3-15</sub>cycloalkyl;

R<sup>3</sup> represents a C<sub>1-15</sub>alkyl group, C<sub>3-15</sub>cycloalkyl, a phenylC<sub>1-4</sub>alkyl group, a heteroarylgroup, a heteroarylC<sub>1-4</sub>alkyl group, or a group R<sup>4</sup>(CH<sub>2</sub>)<sub>n</sub>- in which R<sup>4</sup> represents a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one or more heteroatoms selected from nitrogen, oxygen or sulphur and n is 0, 1, 2, 3 or 4;

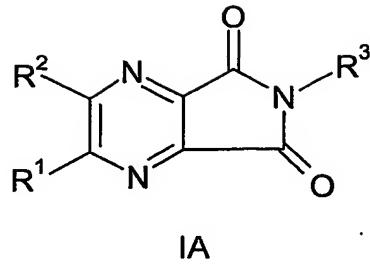
X and Y independently represent O or S;

m and n independently represent 0 or 1;

wherein each of R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> is optionally substituted by one, two or three groups represented by Z wherein Z represents a C<sub>1-6</sub>alkyl group optionally substituted by one or more fluoro, a C<sub>1-6</sub>alkoxy group optionally substituted by one or more fluoro, hydroxy, halo, trifluoromethylsulphonyl, benzyl, nitro, amino, mono or di C<sub>1-4</sub>alkylamino, mono or di C<sub>1-3</sub>alkylamido, C<sub>1-3</sub>alkylsulphonyl, C<sub>1-6</sub>alkoxycarbonyl, carboxy, cyano, carbamoyl, mono or di C<sub>1-3</sub>alkyl carbamoyl, sulphamoyl or acetyl.

- 24 -

2. A compound of formula (IA)



IA

and pharmaceutically acceptable salts thereof, in which

- 5 R<sup>1</sup> and R<sup>2</sup> independently represent phenyl, thienyl, pyridyl, C<sub>1-10</sub>alkyl, C<sub>1-10</sub>alkoxy or C<sub>3-15</sub>cycloalkyl;
- R<sup>3</sup> represents a C<sub>1-15</sub>alkyl group, C<sub>3-15</sub>cycloalkyl, a phenylC<sub>1-4</sub>alkyl group, a heteroaryl group, a heteroarylC<sub>1-4</sub>alkyl group, or a group R<sup>4</sup>(CH<sub>2</sub>)<sub>n</sub>- in which R<sup>4</sup> represents a saturated or partially unsaturated 5 to 8 membered heterocyclic group containing one or more heteroatoms selected from nitrogen, oxygen or sulphur and n is 0, 1, 2, 3 or 4;
- 10 X and Y independently represent O or S;
- m and n independently represent 0 or 1;
- wherein each of R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> is optionally substituted by one, two or three groups represented by Z wherein Z represents a C<sub>1-6</sub>alkyl group optionally substituted by one or
- 15 more fluoro, a C<sub>1-6</sub>alkoxy group optionally substituted by one or more fluoro, hydroxy, halo, trifluoromethylsulphonyl, benzyl, nitro, amino, mono or di C<sub>1-4</sub>alkylamino, mono or di C<sub>1-3</sub>alkylamido, C<sub>1-3</sub>alkylsulphonyl, C<sub>1-6</sub>alkoxycarbonyl, carboxy, cyano, carbamoyl, mono or di C<sub>1-3</sub>alkyl carbamoyl, sulphamoyl or acetyl.

20 3. A compound selected from one or more of the following:

- 2,3-bis(4-chlorophenyl)-6-(4-fluorobenzyl)-5H-pyrrolo[3,4-b]pyrazine-5,7(6H)-dione;
- 2,3-bis(4-chlorophenyl)-6-(pyridin-4-ylmethyl)-5H-pyrrolo[3,4-b]pyrazine-5,7(6H)-dione;
- 2,3-bis(4-chlorophenyl)-6-piperidin-1-yl-5H-pyrrolo[3,4-b]pyrazine-5,7(6H)-dione; or
- 6-*tert*-butyl-2,3-bis(4-chlorophenyl)-5H-pyrrolo[3,4-b]pyrazine-5,7(6H)-dione
- 25 as well as pharmaceutically acceptable salts thereof.

4. A compound of formula I as claimed in any one of claims 1 to 3 for use as a medicament.

- 25 -

5. A pharmaceutical formulation comprising a compound of formula I as claimed in any one of claims 1 to 3 and a pharmaceutically acceptable adjuvant, diluent or carrier.

5      6. Use of a compound of formula I as claimed in any one of claims 1 to 3 in the preparation of a medicament for the treatment or prophylaxis of obesity, psychiatric disorders such as psychotic disorders, schizophrenia and bipolar disorders, anxiety, anxiodepressive disorders, depression, cognitive disorders, memory disorders, obsessive-compulsive disorders, anorexia, bulimia, attention disorders, epilepsy, and related conditions, and neurological disorders such as dementia, neurological disorders, Parkinson's Disease, Huntington's Chorea and Alzheimer's Disease, immune, cardiovascular, reproductive and endocrine disorders, septic shock, diseases related to the respiratory and gastrointestinal systems, and extended abuse, addiction and/or relapse indications.

15      7. A method of treating obesity, psychiatric disorders, psychotic disorders, schizophrenia and bipolar disorders, anxiety, anxiodepressive disorders, depression, cognitive disorders, memory disorders, obsessive-compulsive disorders, anorexia, bulimia, attention disorders, epilepsy, and related conditions, neurological disorders, neurological disorders , Parkinson's Disease, Huntington's Chorea and Alzheimer's Disease, immune, cardiovascular, reproductive and endocrine disorders, septic shock, diseases related to the respiratory and gastrointestinal system, and extended abuse, addiction and/or relapse indications, comprising administering a pharmacologically effective amount of a compound of formula I as claimed in any one of claims 1 to 3 to a patient in need thereof.

25      8. A compound as defined in any one of claims 1 to 3 for use in the treatment of obesity.